The Maine Installer

August, 1993 *Dedicated to Professionalism in Underground Tank Installation* *Vol. 2, No. 1*

Case of the Missing Issue

The astute among you who leaf through your gold-trimmed leather binder where you surely keep all the back issues of this newsletter probably noticed that there is a blank space where volume 1 number 4 ought to be. No, we did not get your address wrong. There was no volume 1 number 4. But here's volume 2 number 1, and we hope you will find it useful.

First, there's a brief summary of new laws which affect the underground tank program. Though the changes this year dealt mostly with owners rather than installers, we felt it a good idea to keep you up to date.

An interesting question came in last spring regarding what facility owner's requirements are for leak detection. Our attempt to answer that question is reprinted in this newsletter.

Dave McCaskill will give you his insights on testing the new jacketed tanks.

And finally, our regular features and a ditty or two are included to keep you up to date on the Board.

Legislative Happenings

The legislative session recently concluded with a number of actions that may concern tank installers. The following is a brief summary of some of the new laws that may be important to you. It does not attempt to provide a comprehensive list of bills which may affect all of small business or of the operation of the State as a whole. Rather, it is merely a list of those bills of interest to the Department of Environmental Protection (DEP) which also may concern tank installers. There were no bills which directly changed the Board of Underground Tank Installer's mandates.

"An Act Regarding the Department of Environmental Protection Rulemaking," P.L. 1993, chapter 328, amends general administrative provisions for the DEP in two respects. First, DEP will have to identify, where feasible, any proposed rules which may be more stringent than the Federal standard, if a Federal standard exists, in its regulatory agenda. (All state agencies must publish a regulatory agenda annually, which lists what rules are contemplated during the next year.) Second, the DEP must identify and justify specific provisions which are more stringent than applicable Federal standards during the consideration of the proposed rule by the Board (of Environmental Protection).

"An Act to Establish the Fund Insurance Review Board," P.L. 1993, chapter 363, makes a number of changes to the manner in which claims for remedial action from ground water oil spills are addressed and processed by the State. While not directly affecting installers, the Act does apply to tank and facility owners, and thus may be of interest to installers. The major thrust of the law is to set up a review board to hear appeals from applicants for remedial action coverage who were denied coverage by the DEP. The Board is comprised of eight (8) members; three (3) from the petroleum industry, three (3) public members, a representative from the DEP, and a representative from the State Fire Marshal's Office. As a part of this process, spills and discharges from above ground tanks will now generally be covered by the ground water fund (with a few exceptions). While the entire Fund Review Board will establish through rulemaking "substantial compliance" criteria for above ground tanks which may become technical standards, only the three (3) public members will hear appeals. In addition, applicants not in substantial compliance (see the "Questions and Answers" article in this issue for a discussion of some aspects of "substantial compliance" for underground tanks) are entitled to present justification for noncompliance to DEP for consideration in the decision to accept or deny a claim. Additional, less significant changes were made in the claims process were made in *"An Act to Amend Certain Laws Pertaining to the Department of Environmental Protection's Bureau of Hazardous Materials and Solid Waste Control,"* P.L. 1993, chapter 355.

"An Act to Establish Uniform Procedures and Standards for Administrative Consent Agreements," P.L. 1993, chapter 204, amends enforcement authorities of the Department of Environmental Protection (DEP) (who would take action against tank owners and operators) regarding specifying what information is required

to be provided to anyone being offered a Consent Agreement to resolve a violation.

"An Act to Amend Certain Laws Pertaining to the Department of Environmental Protection's Bureau of Hazardous Materials and Solid Waste Control," P.L. 1993, chapter 355, increases the detectable leak provision of daily inventory requirements (for motor fuel tank owners and operators) from 0.5% of the product delivered during a 30 day period to 1.0%.

Copies of individual laws can be obtained from the Office of Revisor of Statutes, Legislative Council, State House Station 7, Augusta, ME, 04333; 287-1650.

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Questions and Answers

Question: The following question appeared in the mailbox last spring. Since the question and answer may be of interest, an edited version is being presented here:

"We interpret the intent of Sections 5.D, 6.C, & &.C in Chapter 691 to require the annual inspection/calibration/testing of a number of key UST components, most notably, leak detection systems, cathodic protection systems, and overspill/fill equipment. Also, under Air Quality, the vapor recovery equipment has inspection requirements as well as the metering equipment which are confirmed by Weights & Measures.

How are the 691 Sections I refer to enforced? Annually? Ramdomly? Only at potential Fund Sites? or Removals? What is the result of noncompliance? We are not sure. We have seen a form used at some closures which identify some of these items. Would you kindly explain in more detail this process so we may operate and advise correctly?" (Charles Wilson, Portland Pump Co., 4/5/93)

Answer: Because you referenced a number of State programs, a number of people helped answer this question, including Jim Hynson (staff to BUSTI); Scott Whittier and Diana McLaughlin (DEP BHMSWC Div. Haz. and Oil Fac. Regulation); Ron Severance (DEP Bur. Air Quality Control); and Dan Newcombe (ME Dept. Agriculture Div. of Regulation) an opportunity to put their two cents in.

Before I get into the mechanics of what the enforcement processes are, I'd like to clear up a point about "the intent" of the regulations. You are very correct in stating 06-096 CMR c. 691 Secs. 5.D, 6.C, and 7C require monitoring of key UST components. However, the Department of Environmental Protection's (DEP) intent for these sections is much broader than regulating for the heck of it. There are two major objectives ("intents" if you will) for the provisions in Chapter 691:

1. Enable tank owners to detect leaks as early as technically possible, so as to enable environmental, public safety, and cleanup costs born by the tank owners, neighbors of the facility, the State, and other contributors to the Groundwater Fund to be kept to a minimum; and
2. Give the DEP's Field Services staff a source of initial information in cases where they receive complaints of product escaping into the environment (e.g., gasoline in wells or sewers, fumes in basements), especially in locations where the product can be coming from one or more of many alternative facilities.

Vapor recovery monitoring requirements seek to accomplish similar objectives, in that unless the vapor recovery equipment operates properly, the expense of its installation is wasted.

The original intent of Weights and Measures regulations for calibrating gasoline pumps departs somewhat from the environmental protection theme and is more rooted in consumer protection (they predate the DEP's interest in underground tanks by many years). Specifically, they are in response to citizen complaints of not getting a gallon of gas when they paid for a gallon of gas. However, they significantly affect DEP leak detection regulations in that pump meter error can be a significant source of problems in daily inventory reconciliation and statistical inventory analysis, both of which DEP requires (for single walled motor fuel and retail facilities) in its regulations.

The gist of the foregoing sermon is the DEP's objective is not enforcement but rather compliance. The Department's "dream," if you will is that installers and owners alike will comply with the regulations not because we'll climb on installers and owners if they don't, but rather because installers and owners realize its in their long term interest to comply. Now, on to the mechanics of how the Department monitors compliance for leak detection provisions in Chapter 691.

Probably the greatest amount of oversight is in the area of statistical inventory analysis (SIA)

(06-096 CMR c. 691 Sec. 5.D.2). Those facilities which use this method as their leak detection must submit an analysis annually to DEP. DEP uses its underground tank registration data base to identify those facilities which should have submitted an analysis but haven't. Owners who haven't submitted SIA's in a timely manner are customarily contacted by mail and issued a Notice of Violation (NOV) with a time frame for achieving compliance. If this "reminder" doesn't work, a second NOV follows. If the second NOV doesn't work, enforcement action follows. If an analysis shows a possible leak, DEP Response Services and/or enforcement staff work with the tank owner to uncover the source of the problem on a case-by-case basis (the problem may not be a leak).

Most of the other monitoring requirements under Chapter 691 do not include provisions for submittals to DEP, but rather requirements for owners to maintain records subject to DEP field inspections and other site visits. The DEP's routine field inspection program is by and large Federally funded and thus concentrates on facilities which are included in Federal regulations (e.g., those facilities regulated under 06-096 CMR c. 691 Sec. 5.D). The DEP has a quota of inspections negotiated annually between the State and the U.S. Environmental Protection Agency (EPA). Currently, the enforcement staff has an agreement with EPA to do forty (40) general compliance (non-conforming facilities) inspections and fifty-six (56) new facility inspections per year. Initial inspections that reveal leak detection problems usually result in issuing written warnings on site and follow-ups to determine if the problems found have been corrected. Enforcement action will escalate if the problems are found to be continuing.

In addition, EPA recently proposed an inspection program that will involve field citations for violations of Federal underground tank requirements. The field citation program would require civil penalties for violations, and the site will be monitored to ensure it comes into compliance. Once again, continuing failure to comply will result in escalating enforcement action. This program has not yet been implemented and will probably be coordinated with Maine enforcement staff.

Far more important than routine inspections, though, is investigation after "evidence of a leak" comes to the attention of DEP. Once evidence of a leak is reported and confirmed, DEP staff need to determine the integrity of every site that is suspect by virtue of its location relative to the location of the "evidence of a leak" found. In this case, failure to keep adequate leak detection information may result in the DEP requiring leak detection tests (precision testing, excavation, etc.) promptly on any suspect site. This will be at least inconvenient for the owner/operator and may lead to enforcement action based on insufficient leak detection.

The two other mechanisms you mentioned are "Fund Sites" (I assume cleanups funded by the Groundwater Oil Clean-Up "insurance" Fund) and removals. These are addressed in the manner they are referenced in State statute.

"Fund Sites" include facilities which require clean-up and may or may not involve claims of third party damages. State law enables clean-ups and resolution of third party damages from the State's Groundwater Fund (38 MRSA Sec. 568-A). However, in order to obtain coverage, the owner/operator must submit a claim within ninety (90) days of the report of a discharge and must be in "substantial compliance" with specified underground tank statutes and rules, including those rules involving leak detection (*Ibid*., para. 1.A(3) and 1.B.(4)-(6)). While the burden of proof is on DEP to show a lack of substantial compliance, Fund coverage claims for third party damages and clean up costs have been denied if leak detection requirements were not obeyed. The owner/operator then becomes liable for all cleanup costs him/herself.

With the promulgation of the revised Chapter 691, removals now must include site assessments (06-096 CMR c. 691 Sec. 11.A.1.d). Proper leak detection that indicates the facility has not leaked can substitute for a complete site assessment (*Ibid*., Appendix P, para. 8).

The Department's Bureau of Hazardous Materials and Solid Waste Control has a checklist for overall recordkeeping which it is planning to mail to all installers. If you want to make sure you have a copy, call us with your request.

Ron Severance of the DEP's Air Bureau spoke to me regarding their inspections of vapor recovery system testing. While such monitoring is currently being considered for the Air Bureaus Stage II vapor recovery program, those regulations are in draft form and have yet to reach the point of being subjected to a public hearing. Therefore, the testing requirements themselves remain in doubt and thus it is difficult

to predict how DEP would set about monitoring compliance. Stage I vapor recovery requirements (06-096 CMR c. 118) are monitored by DEP Regional Office staff when complaints are received on specific facilities.

If you have any questions of a technical or regulatory nature that you wish to have answered in this newsletter, please direct them to Jim Hynson, Board of Underground Storage Tank Installers, c/o Maine Department of Environmental Protection, State House Station 17, Augusta, ME 04333. Or call 207/287-2651.

Alternate Pre-Installation UST Test

In the beginning, there were only cathodically protected steel and fiberglass reinforced plastic (FRP) tanks and the pre-installation test procedures were set -5 psi air pressure, soap the welds and fittings for steel tanks, the entire surface and all fittings for FRP tanks and monitor the air gauge for an hour. For double-walled tanks, the primary tank was pressurized and monitored then air was transferred from the primary tank to the interstitial space for a one (1) hour air/soap test.

Now we have jacketed tanks which are neither fish nor foul but a combination of technologies. The interstitial space of jacketed tanks, cannot for the most part be air pressure tested (the exception is Total Containment which can be tested to 1 psi) because of their jacketed thickness and construction. Instead, jacket tanks are shipped with a vacuum to insure tank integrity. The FRP tank manufacturers are also offering alternate pre-installation tests when the hydrostatic monitoring system is used for leak detection. The tanks are shipped with annul space filled with a colored monitoring fluid. On-site the installer would then inspect the tank for evidence of fluid leaking through the outer wall.

All the above procedures are for testing the tank and/or jacket shell however; all but one manufacturer requires that a separated air/soap test be performed on the tank top fittings. In fact, two manufacturers require that this test be performed after all the piping connections and risers have been installed.

Now lets look at what Chapter 691 actually requires. Appendix D, "Installation Requirements Applicable to New and Replacement Tanks", Section 5 states:

> "New underground tanks shall be tested for tightness before beingcovered or placed in use by a pneumatic test conducted in conformancewith the requirements of Appendix C or another test method approvedby the Commissioner".

Appendix C describes the standard air/soap test while the phrase "another test method approved by the Commissioner" allows the Department discretion in allowing alternate manufacturer approved testing techniques, if in fact, they are comprehensive pre-installation tank tests. The following is a summary of the allowable alternate pre-installation testing methods which were described earlier in this article:

- Jacketed tanks may be tested by monitoring the factory drawn vacuum in conjunction with a one (1) hour, 5 psi air/soap test.
- FRP tanks may be visually inspected for evidence of colored hydrostatic fluid in conjunction with a 1 hour, 5 psi air/soap test (e.g. Owens Corning installation instructions).
- All other manufacturers requirements must be met such as those requiring air/soap test of all piping and riser connections to the tank fittings (see Elutron and Permatank installation instructions).

A final 5 psi check of all tank top fittings is probably a good idea especially if you are using a ball float valve for overfill prevention. If the tank continues to vent around a loose fitting then the valve will not totally shut off. Chapter 691, Appendix D, does not allow air pressure testing after petroleum has been placed in the tank because of possible explosion hazards. If you regularly ballast tanks with fuel (as required by FRP manufacturers) then with the proper safety procedures a nitrogen blanket can be used to test the tank top fittings. If you are interested, give me a call for details.

W. David McCaskill, Assistant Engineer, Maine Department of Environmental Protection, Bureau of Hazardous Materials and Solid Waste Control, Division of Remedial Planning and Technical Services.

Training Opportunities

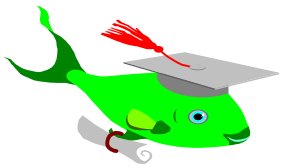
Recently, the Board renewed the certification of two (2) courses offered by SafeTech Consultants (500 Southborough Dr., South Portland, ME 04106; 207-773-5753). These courses will be offered periodically in order to ensure a relatively small class size. Contact the programs' sponsor for more information. The courses are:

- 40 Hour OSHA training for tank installers (accreditted for 8 hours Board approved training). The cost is $875.
- 8 Hour OSHA training refresher for tank installers (accreditted for 3 hours Board approved training). The cost is $175.

In addition to courses approved by the Board, a number of other educational opportunities are available. The Board's rules allow installers to apply for credit for education when the course sponsors do not. These as yet unapproved offerings available at this time include:

- The College of Engineering, University of Wisconsin--Madison (432 North Lake St., Madison, WI, 53706; 800/462-0876) continues to offer a number of programs of potential interest to tank installers. These courses include, but are not limited to: "Cathodic Protection Design" (last offered July 12-16, 1993 at a cost of $975), "Health and Safety Training for Underground Storage Tank Workers" (September 27-30, 1993; $1075), "Liquid Storage Tank Technology" (Nov. 1-4, 1993, $925), "Underground Storage Tank Management" (Dec. 6-7, 1993, $450), and "Leak Detection and Cleanup" (Dec. 8-10, 1993, $675).
- The Colorado School of Mines Office of Continuing Education (Golden, CO, 80401; 303/273-3321) will offer an "Underground Storage Tank Workshop" September 27-30, 1993 at a cost of $650.
- The Petroleum Equipment Institute (P.O. Box 2380, Tulsa, OK 74101-2380) recently sponsored a series of four (4) one-day worshops scattered throughout the country (Baltimore, MD; Windsor Locks, CT; Rosemont, IL; and Irving, TX). The workshops were on "How to Install, Test and Maintain Vapor Recovery Systems. The cost was $75 for PEI members, $125 for nonmembers. We don't know whether or not these will be offered again.

The Board is revisiting the issue of its role in planning for continuing education, and staff routinely receives requests for ideas for continuing education programs. If you have any ideas or want to see a particular subject addressed through a continuing educaiton program, please contact Jim Hynson at 287-2651.



Board Bio: Dick Tuttle

Richard "Dick" Tuttle will unfortunately soon end his over five year tenure with the Maine Board of Underground Tank Installers as the designated representative of the Maine Oil Dealers' Association. He originally hails from Boston, Massachusetts where he was born on November 20, 1936. Dick attended grade school in South Portland, Maine, and graduated from South Portland High School in 1955 (where he captained the '54 Football Team and co-captained the Track Team). He attended Bowdoin College from 1955 to 1958 and subsequently graduated from the University of Maine in 1962 with a BA Degree in Political Science. He also holds an Associate Degree in Business Administration from Westbrook College on the GI Bill.

Dick joined Gould Equipment Company, a major distributor of underground petroleum service equipment in Maine and New Hampshire, as salesman for southern Maine in 1967. He became a partner in that firm in 1975 where he worked in various assignments marketing petroleum equipment and supplies. In 1990 he became president and senior partner in the firm and functions daily as the CEO.

Dick was commissioned a Second Lieutenant in the United States Air Force in 1962 and served in Germany as an Administrative Officer and Squadron Commander for four years. He then went to Strategic Air Command (SAC) Headquarters where he served for a year with the US Postal and Courier Service. Dick now holds the rank of colonel in the Maine Air National Guard in which he has served for 22 years since separating from the active force in 1967. Recently, he was appointed to the State position of Assistant Adjutant General for Air, serving as Commander of Maine Air National Guard. He holds the Air Force Commendation Medal, the meritorious Service Medal and other decorations.

He served on the Portland School Committee Expo Advisory Board to the Exposition Building and as a Trustee of the Maine Veteran's Homes. He is a director and Member of the Maine Oil Dealers Association Executive Committee. He resides in Portland or at his summer home in West Bath with his wife of 32 years, Sandra. He has three children, Ben, Jonathan and Pamela. Son Benjamin is associated with him at Gould Equipment Company as a sales representative.

Enforcement Update

One installer received a warning from the Board after a hearing regarding his/her performance at a gasoline tank removal where (1) no provisions were made to monitor the tank for explosive vapors prior to removal nor inert the tanks, and (2) the installer performed the work even though the removal notice identified another installer from the same firm as the installer in charge. In this instance the Board limited the penalties for these violations (which would normally involve civil penalties and suspensions) because this installer was assigned to the job by his/her employer on extremely short notice and because an apparent significant delay occurred between the event and the filing of a complaint with the Board.

Two other cases were heard involving a single gasoline tank removal. In this instance, the removal involved a confirmed leaking tank that was located underneath a building in a very developed area. Because of safety concerns, the Department of Environmental Protection (DEP) identified the site as a confined space requiring monitoring with an explosimeter inside the building for the duration of the work. DEP staff subsequently found the monitoring not to be occurring. While two installers were present at some point on the site, the Board found the one originally charged did not have ultimate responsibility for the site and thus dismissed the charges. The second installer, who was listed on the DEP removal notice as the installer in charge, was found to be responsible for the incident. The Board, however, limited the penalty to a requirement to obtain additional safety training, since the Board felt the second installer was not given adequate lead time or a briefing on the job by his/her supervisor.

An investigation was dismissed and closed regarding a charge that copper lines on a fuel oil tank installation had not been enclosed in PVC piping. The investigation had been initiated by a photograph of the facility prior to burial. Subsequent investigation and field visits indicated that PVC piping and manway sumps had in fact been installed after the photograph was taken and before the facility was buried.

One installer, in a Consent Agreement, admitted to not being present at a facility while repairs to underground piping for a gasoline tank had been completed based on a request to the

installer from the tank owner. In this instance, the uncertified workers sent by the installer (1) failed to report evidence of a leak to the DEP; (2) violated DEP rules by air testing piping which had previously held product; and (3) violated DEP rules by replacing a swing joint on bare, galvanized piping with another unprotected swing joint. In the Consent Agreement, this installer accepted an $800 civil penalty.

Subsequently, DEP negotiated an informal agreement with the tank owner of the facility mentioned in the previous case to allow a nonmetallic flex connector to be used instead of the unprotected swing joint. However, the entire facility would be replaced in a short time. When another installer installed the flex connector, he/she also air tested piping which had previously held product. He/she ultimately admitted to a violation and subsequently accepted a Consent Agreement offered by the Board which included a $250 civil penalty.

One installer agreed to charges that he/she (1) provided inadequate depth of cover for a fuel oil tank at one facility, (2) failed to provide secondary containment and continuous interstitial space monitoring at a second facility, and (3) conducted the installation at the second facility before it had been registered with the DEP. In a Consent Agreement, this installer agreed to accomplish specific repairs on both facilities and pay a civil penalty of $1500.

One installer wished to be recertified without having completed the required continuing education. He/she agreed to a six (6) month probation in order to complete the continuing education and a $250 civil penalty.

DEP Enforcement Notes

DEP oil enforcement staff recently addressed an enforcement case where the U.S. military contracted with an out of state company for removal and replacement of underground heating oil tanks at five (5) sites from Saco to Bangor. The Maine Certified Installer overseeing the sites subsequently reported to DEP that at least four of the nine tanks at the five sites were installed without his supervision.

The out of state contractor attempted to argue the installer was on site, but could produce no evidence to support their claim. In a written statement, the installer stuck to his story. Established Department policy was that non-certified tanks had to be removed and any tank reinstalled would need to be re-warrentied by the manufacturer and installed under the direct on-site supervision of a Maine Certified Installer. A Notice of Violation was issued to the military requiring that any tank not certified be removed within 90 days.

Once the military received the NOV, the contractor's representatives responsible for the installations were replaced by the corporate headquarters, and a commitment was made to remove the tanks and reinstall them in accordance with Maine law and Department regulations. An instate company was brought on board and all the tanks in question have been removed and inspected by the manufacturer.

I felt a touch of sadness as I watched these brand new tanks being pulled. I don't like to see waste. Here was a situation that should never have occurred, costing an enormous amount of money and manpower. The military, after hiring a contractor in good faith, was subjected to enforcement action for operating non certified tanks. The contractor, having suffered a loss of reputation, has swallowed the cost of excavation, testing and reinstallation. Even the subcontractor currently performing the work has been caught up in the hassle of fixing someone else's mistakes.

If there is any winner, it can only be the Certified Installers Program. Without the resources to oversee every installation and class 1 removal in the state, the Department depends on the training and integrity of licensed installers to ensure that underground storage facilities are properly installed. Proper installation means fewer undetected leaks and less contamination. Preventing contamination protects the public's health and safety and, as this case demonstrates, an ounce of prevention is worth a pound of cure.

Tim Wright, Environmental Specialist III, Maine Department of Environmental Protection, Bureau of Hazardous Materialx and Solid Waste Control, Division of Oil and Hazardous Waste Facilities Regulation.

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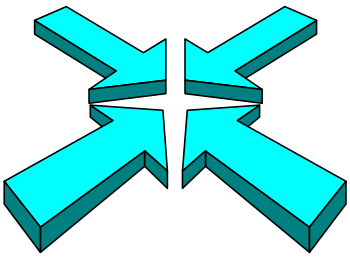

Dig Safe

In the course of activities installers and removers are often called upon to dig or direct an excavation in areas we are not wholly familiar with. This, in the past, has led to digging up pipes, wires and other buried stuff unintentionally. Such activities can be dangerous, especially when the pipes are gas lines or the wires are live and located near gasoline-contaminated soils. However, government has now acted to help you.

Starting January 1, 1993, Maine state law requires anyone who excavates (that's "digs" for most folks) on public or private property (anywhere) to notify the Dig Safe Center with one free phone call (**1/800/225-4977**) 72 hours in advance, except in an emergency. In an emergency, call as soon as you know you are going to dig.

What this does is give utility companies and facilities a chance to identify buried pipes or wires before you damage them inadvertently by digging them up. Additionally, it makes digging safer. For you cost-minded personnel it also protects your financial worth, because if a pipe or wire is damaged, our contractor and possibly we will be responsible for damage done, and resulting repairs.

This means **don't dig** until you have called **1/800/225-4977** at least 72 hours in advance. Plan ahead. Do it right. Your own safety and financial worth may be at stake.

Adapted From "Serendipity; The [Department of Environmental Protection Bureau of Hazardous Materials & Solid Waste Control] Health, Safety, and Training Newsletter." Vol. VI, No. 1, January -- March 1993.

We're saddened to learn of the deaths of two of our certified installers. Jean Theberge and Hoyt Hall both recently passed away. We send our sincere condolences to their families.

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